

REMARKS

The issues outstanding in the Office Action mailed May 14, 2008, are the requirement for restriction, and the objection to the specification and to the claims, the rejection under 35 U.S.C. 112, 103, and the obviousness-type double patenting rejection. Reconsideration of these issues, in view of the following discussion, is respectfully requested.

Requirement for Restriction

The Office Action continues to argue that groups I, II, and III drawn to formulations, methods of preparing same, and methods of using same, respectively, do not relate to a single general inventive concept as they allegedly lack the same or corresponding special technical features under PCT rule 13.2. Applicants have responded, noting annex B of the administrative instructions under the PCT, which states that there are 3 particular situations arising under rule 13.2 in which unity of invention *will* be found. One of those situations, as described in section (e)(i) of the annex, is where there is an independent claim to a product, a claim to a process especially adapted for manufacturing a product, and a claim for a use of that same product. It is again maintained that unity of invention for this combination does *not* require a special technical feature that defines a contribution over the art, inasmuch as no such requirement is set forth in sections (d)(e) of annex B which explain rule 13.2.

In response, the Office Action simply states that this is not persuasive because the requirement of unity of invention in rule 13.1 is fulfilled only when there is a special technical relationship among those inventions. However, this neglects the fact that rule 13.2, as discussed above, does not require that special technical relationship where the claims fit into the above-noted categories, as they do here. Thus, withdrawal of the restriction requirement is appropriate, and is again requested.

Objections

The Examiner is thanked for pointing out the error in the priority claim, which has been corrected in the present amendment.

Objection to the Claims

The Examiner is further thanked for pointing out various typographical errors in the

claims, which have also been corrected herewith. With respect to the “use of proper Markush language”, attention is directed to MPEP §2173.05(h), stating that if “wherein R is a material selected from the group consisting of A, B, C and D is a proper limitation, then wherein R is A, B, C or D shall also be considered proper.” No change to the Markush language is submitted to be necessary. With respect to claim 30, the capitalization has been corrected. Withdrawal of this objection is respectfully requested.

Rejections Under 35 U.S.C. 112

Claims 1-16 have been rejected under 35 U.S.C. 112, second paragraph. Reconsideration of this rejection is respectfully requested. It is submitted that the claims have been clarified in order to indicate that silver oxide is combined with the inorganic pigment, to result in the antimicrobial pigment. The claims have not been changed in scope either literally or for purposes of the doctrine of equivalents by this clarifying amendment. Withdrawal of this rejection is therefore respectfully requested.

Rejection Under 35 U.S.C. 103

Claims 1-16 have been rejected under 35 U.S.C. 103 over Seo ‘627 taken with Seo (cosmetics and toiletries), Goetz, either Ilar ‘366 and Aleksandrov. Reconsideration of this rejection is respectfully requested. Both Seo references disclose antimicrobial pigments produced by a process in which *intercalation* of the silver oxide takes place into the inorganic pigment. For example, Seo (cosmetics and toiletries) sinters a mixture of aqueous silver nitrate and base particles. See page 84, the right hand column, where the mixture is produced at a temperature of 825°C and a time of 3 hours. The authors indicate that the metal oxide forms a firmly coated layer that is amorphous like glass and holds the metallic silver in the crystal lattice. Intercalation, as is well known, requires significant heating. See the attached article. Similarly, in Seo ‘627, an “amorphous glassy layer” is produced (see column 3, lines 42-43). Note also that column 7 discloses sintering, and the examples of the patent employ temperatures described as “roasting” at 450 to 800°C. Such an intercalation treatment does *not* suggest a room temperature (20 to 45°C) process such as that presently claimed, at which intercalation of metal ions into a lattice and metal oxide would be chemically impossible. Indeed, there is no suggestion from these two references that such a process could be employed to produce effective antimicrobial pigments.

Goetz describes the method of agitating titanium dioxide with silver oxide to produce photosensitive surface complexes, with which can be obtained photographic surface images. Such a process would be expected to be temperature sensitive, and certainly would never be combined with that of the primary reference employing destructively high temperatures. Moreover, Goetz does not disclose coated substrates such as those of the present claims. Thus, even if it were combined with the primary reference (it would not be, as noted above) the resultant materials would not be those presently produced by the claimed process.

Ilar and Aleksandrov are cited to allegedly provide various teachings of dependent claims, such as the shape of the pigments for the particular substrate. However, these references also fail to remedy the deficiencies of the above-discussed references, in that they do not suggest production of an antimicrobial pigment using the room temperature process claimed. The pigments claimed herein are thus considerably different from those of Seo, in that Seo produces an intercalated glassy material. Thus, the presently claimed products are clearly different from those produced in the references, whether singly or in combination. Withdrawal of the rejection is thus respectfully requested.

Double Patenting

The double patenting rejection is moot, in view of the attached Terminal Disclaimer.

The claims of the application are all submitted to be in condition for allowance. However, if the Examiner has any questions or comments, he or she is cordially invited to telephone the undersigned at the number below.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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